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ABSTRACT

Reported in this paper are preliminary results from a study designed to examine the development of self-esteem and mastery of mothers with infants of very low birth weight (VLBW). (The term "self-esteem" is defined as the degree of positive or negative self-regard reported by an individual, and "mastery" is defined as the extent to which an individual believes he or she has a causal role in determining the outcome of events importantly affecting his or her life.) A total of 20 low-income Mexican-American mothers who gave birth to VLBW infants (1,250 grams or less) participated in the study along with 20 socioeconomically matched mothers having infants of normal birthweight. Self-esteem was assessed on the Rosenberg Self-Esteem Scale, and mastery was assessed on the Pearlin Mastery Scale. Results suggested that mothers in both groups possessed normally high levels of self-esteem, regardless of their infants' birthweights, and that mastery in mothers of VLBW infants was associated with self-esteem (that is, the higher the mother's self-esteem, the higher her mastery, and vice versa). (MP)

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MATERNAL PSYCHOSOCIAL FUNCTIONING IN FAMILIES OF VERY LOW BIRTHWEIGHT INFANTS

Paper presented at the Annual Meeting of
The Southwestern Psychological Association

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INTRODUCTION

Preterm very low birthweight (VLBW) infants comprise the group of infants most at risk for neurodevelopmental problems. The national incidence of developmental disability in infants weighing 1500 grams (3 3/8 pounds) or less is approximately 20%. Since 1979 we have been following the development of the smallest group of preterms born at Medical Center Hospital in San Antonio, Texas. All parents of infants born weighing 1250 grams (2 3/4 pounds) or less are invited to participate in a comprehensive program of medical, developmental and social support services which are provided from birth to two years from the infants expected birthdate. Parents are primarily low-income Americans of Mexican heritage. Three-quarters are either married or living with a partner. Less than one half have completed a high school education. Families have meagre sources of income other than the father's employment. The income for half of the families is less than $5,000 (based on family of 4).

Suffice it to say that preterm, low birthweight infants born to these families are at risk for poor developmental outcome due to both constitutional and environmental factors. At one year of age, the incidence of mental and motor disability was 32%. At two years the incidence of mental disability was 47% and of motor disability 53%.

The major goal of our program is to optimize the development of VLBW infants. In reviewing the developmental outcome data of our first group of infants (presented

at SWPA; April, 1981), perinatal medical factors did not adequately predict those infants who would manifest neurodevelopmental problems at one year. We hypothesized that environmental factors were making a significant contribution to the infants' developmental progress. In 1982 we added to our follow-up study a comparison group of normal birthweight (NBW) infants whose families are similar to the VLBW families with regard to socioeconomic and ethnic background factors. In addition we systematized periodic collection of extensive demographic data and instituted a protocol of instruments which measure parental psychosocial functioning and home environment.

These additions to our project were made for two reasons: First, to enable us to more adequately identify those VLBW infants at greatest risk for developmental disability, and secondly, to provide a profile of parental psychosocial functioning which could serve as an assessment for individual family guidance and education over the infant's first years.

Our definitions of parental psychosocial functioning were drawn from the work of Pearlin and Schooler (1978), who have developed a theoretical model of adult coping. They posit that an individual's effectiveness in coping with the problems of everyday life is based on the extent to which their psychological resources and coping mechanisms reduce the relationship between role strain and emotional distress. Role strain refers to the person's perception of adequacy and stress in major role areas such as parenting, interpersonal relations, household economics, and occupation. Coping mechanisms refer to the various kinds of behaviors people employ in addressing problems and in meeting the demands of life roles. Pearlin and Schooler propose that self-esteem and mastery are the two central psychological resources that people rely on to address everyday life problems.

Self-esteem is defined as the degree of positive or negative self regard reported by an individual. Mastery, is defined as the extent to which an individual believes he or she has a casual role in determining the outcome of events importantly affecting his or her life. Today we would like to share with you our preliminary results, focusing specifically on the psychological resources of the mothers of our infant population. We will report on the self-esteem and mastery of the VLBW group mothers and the NBW group mothers.

METHOD

Parents of all infants born weighing 1250 grams or less at birth are invited to participate in a follow-up program of medical, developmental and social services. In recruiting normal birthweight group families, we use a group matching technique, a form of nonprobability sampling where the two groups are matched on 7 characteristics:

1. Hospital of infant's birth (Medical Center Hospital)
2. Year of infant's birth
3. Birth order (firstborn versus latter born)
4. Sex ratio (60% female)
5. Ethnic background of mother
6. Level of educational attainment of mothers (less than high school, high school, graduate, or more than high school)
7. Marital status (single parents, married, or cohabiting)

The goal is to match families in the two groups on important social, economic, and medical factors so that the major difference between them is the birthweight of their new baby.

their new baby.

For the VLBW/NBW comparison component of our project we are using a quasi-experimental one year longitudinal study design. The overall project, as previously stated, involves a treatment group: VLBW infants and parents who participate the follow-up services for a period of 2 years. The comparison group of NBW infants and parents receive only developmental evaluation services through one year. Both groups of families complete the following activities:

1 Mothers complete a series of psychosocial questionnaires, including those which measure self-esteem and mastery, after the birth of the infant, when the infant has been moved from the third to the second level of care in the Neonatal Intensive Care Nursery.

2. Infants' developmental status is evaluated by the Bayley Mental and Motor Scales at 6 and 12 months from the infant's expected or term date of birth.

3. Mothers repeat completion of the psychosocial questionnaires at the time of the 12-month exam. (The purpose of repeating the questionnaires is to determine to what extent maternal perceptions of psychosocial functioning change over the one year period.)

The data to be reported today represents self-esteem and mastery reports by 40 mothers shortly after their infant's birth. Twenty are mothers of VLBW infants and 20 are mothers of NBW infants. Self-esteem was assessed by the Rosenberg Self-Esteem Scale, a 10-item questionnaire. Mastery was assessed by Pearlin Mastery Scale, a 7-item questionnaire.

RESULTS

Reliability:

With our preliminary sample of low-income Mexican-American mothers, the alpha reliability of the Self-Esteem Scale was .80, and of the Mastery Scale, .67. Reliability coefficients were also calculated for the VLBW and NBW groups separately, for both scales. Alpha reliability coefficients for the Self-Esteem Scale were .86 for the VLBW group and .65 for the NBW group. A z test was performed to test the significance of difference between the individual group reliability coefficients. There was not a significant difference between coefficients for the Self-Esteem Scale. Alpha reliability coefficients for the Mastery Scale were .78 for the VLBW group and .34 for the NBW group. The z test for Mastery Scale individual group coefficients yielded a z value significant to the .04 level. Due to the unacceptable level of reliability of the Mastery Scale for the NBW group and the significant difference in reliability between groups on that scale, mastery findings will be reported only for the VLBW group. Findings with regard to self-esteem will be reported for both groups.

Self-esteem: The Self-Esteem Scale yields a total possible score of 4.0. A score of 1 indicates low self-esteem; a score of 4 indicates high self-esteem. Mean self-esteem scores for the VLBW and NBW groups were 3.2 and 3.3 respectively. Chi square analysis was performed to test the independence of level of maternal self-esteem from infant birthweight group (see Table 1). Mothers who obtained a score of 3 or higher were considered to have a high level of self-esteem while those who obtained a score below 3 were considered to have a low level of self-esteem. Thirteen VLBW group mothers and 15 NBW group mothers had high levels of self-esteem while 7 VLBW group mothers and 5 NBW group mothers had low levels of self esteem. Level of self-esteem was not significantly related to birthweight group.

Mastery: The Mastery Scale, like the Self-Esteem Scale, yields a total possible high score of 4.0. The mean mastery score for the VLBW group was 2.9.

Levels of mastery were determined in the same way as that described for levels of self-esteem. Nine VLBW group mothers had high levels of mastery while 11 had low levels of mastery.

Self-esteem and mastery: Fisher's exact analysis was performed to test the independence of self-esteem from mastery in the VLBW group (see Table 2). The relationship between levels was not significant. However, the Spearman correlation of exact self-esteem and mastery scores yielded a significant coefficient ($r=.67$).

DISCUSSION

The preliminary results of our study suggest that low-income Mexican-American mothers in San Antonio have a high positive regard for themselves. While the psychological resources of this population have not been reported in the literature (Romero, 1978), these results were somewhat surprising to us. The families in our program have such minimal economic and social resources that we expected them to feel less in control of their lives (i.e., lower sense of mastery), and perhaps also to hold themselves in lower esteem because they are not better able to solve everyday life problems.

Seventy percent of mothers in the combined groups were found to have normal high levels of self-esteem, and high maternal self-esteem was characteristic of mothers regardless of birthweight group. While we are unable to comment on mastery as it describes the total population, VLBW group mothers appear to be characterized by both high and low levels of mastery. Furthermore, feelings of mastery of VLBW group mothers seems to be associated with feelings of self-esteem. That is, the higher the mother's self-esteem, the higher her mastery, and vice versa.

We are puzzled by our reliability findings on the Mastery Scale. The fact that reliability was so strong in the VLBW group and relatively absent in the NBW group leads us to question both the scale and our procedures for administration. In previous studies, feelings of guilt and lack of mothering competency have been found to be characteristic of white, middle-class mothers of preterm infants, particularly of primiparous mothers (Klaus and Kennell, 1976; Seashore, Leifer, Barnett, and Leiderman, 1973; Leiderman and Seashore,1975) The instruments used in these studies have measured mother's perception of herself as a mother rather than as a person. Whereas, Pearlin's Mastery Scale theoretically measured our mothers' perceptions of themselves apart from particular roles or events. However, we wonder if the traumatic event of the birth of a VLBW infant does not overwhelm the mother's sense of overall mastery over everyday life problems. We also wonder if the timing of the measurements may not also account for reliability differences. NBW group mothers complete the questionnaires on the day after their infant's birth, just prior to hospital discharge. VLBW mothers complete the questionnaires only after their infant has passed the most critical period of survival and moved into an intermediate level of intensive care, on the average at about 15 days.

These and other possible explanations for reliability differences will be studied as we continue to increase our sample size in an effort to determine the meaning of maternal mastery in each birthweight group, and how mastery may be associated with self-esteem. We will also be studying maternal psychological resources in relation to other psychosocial characteristics of the family with the intent of describing the changing psychosocial functioning of the infant's family over the first year.

REFERENCES

Klaus, M.H. and Kennell, J. H. Maternal-infant bonding. Saint Louis: C.V. Mosby, 1976.

Leiderman, P.H., and Seashore, M.J. Mother-infant neonatal separation. In Parent-infant interaction, Ciba Foundation Symposium 33. New York: Associated Scientific Publishers, 1975

Pearlin, L.I. and Schooler, C. The structure of coping. Journal of Health and Social Behavior, 1978, 19 (2), 6-21.

Romero, A. The Mexican-American Child: A sociological approach to research. Los Angeles, California: Spanish-Speaking Mental Health Research Center, 1978.

Schlansker, J.T. Developmental follow-up of extremely small premature infants. Paper presented at the annual convention of the Southwestern Psychological Association, Houston, Texas, April 16-18, 1981.

Seashore, M. J., Leifer, A.D., Barnett, C.R., and Leiderman, P.H. The effects of early mother-infant interaction on maternal self-confidence. Journal of Personality and Social Psychology, 1973, 26, 369-378.

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TABLE 1: Level of Self Esteem by Birthweight Group

	HIGH	LOW	
VLBW	13	7	20
NBW	15	5	20
	28	12	40

Chi-square p n.s.

TABLE 2: Levels of Self-Esteem and Mastery in VLBW Group

Self-Esteem	Mastery: HIGH	Mastery: LOW	
High	7	6	13
Low	2	5	7
	9	11	20

Fisher's exact p n.s.
(Spearman r = .67)

Conclusion:

In the period immediately following the birth of an infant maternal self-esteem appears to be high (normal) in a low-income Mexican-American population in San Antonio, Texas. High self-esteem seems to be characteristic of all mothers at this time, regardless of whether they have delivered a low birthweight infant ($\leq$ 2 3/4 pounds) or a term infant of normal birthweight. Reliability for the Mastery Scale (Pearlin & Schooler, 1978) was high for the VLBW group but unacceptable for the NBW group. Mastery in mothers of low birthweight infants seems to associated with self-esteem. Further study is needed to explore the significance of different levels of reliability between the two groups, and of the relationship between mastery and self-esteem.